

What is claimed is:

1. A polyamide resin composition, comprising

(A) 30-95 parts by weight of polyamide resin;

(B) 1-45 parts by weight of an impact resistant component selected from the group consisting of ethylene propylene copolymer rubber (EPM), ethylene propylene rubber (EPR), ethylene propylene diene monomer rubber (EPDM), maleic anhydride modified ethylene propylene rubber (EPR-g-MA), maleic anhydride modified ethylene propylene copolymer rubber (EPM-g-MA), maleic anhydride modified ethylene propylenediene monomer rubber (EPDM-g-MA), arylmethacrylate-butadiene-styrene (MBS), styrene-butadiene-styrene triblock copolymer, all-acrylic core-shell rubber, ethylene ethylacrylate (EEA), styrene butadiene rubber (SBR), ethylene vinylalcohol (EVOH), various thermoplastic elastomers and plastomers, or mixtures thereof;

(C) 0.1-20 parts by weight of nylon plasticizer;

(D) 0.01-5 parts by weight of nylon thickener having at least two functional groups at the ends of its polymer chain; and

(E) 0.5-10 parts by weight of core-shell rubber.

2. The composition as defined in claim 1, wherein the polyamide is selected from the group consisting of nylon 6, nylon 7, nylon 8, nylon 10, nylon 2, nylon 66, nylon 69, nylon 610, nylon 611, nylon 612, nylon 6T, nylon 6/66, nylon 6/12, nylon 6/6T, or combinations thereof.

3. The composition as defined in claim 1, wherein the polyamide is a homopolymer; a copolymer blended or copolymerized with at least one selected from the group consisting of polyimide, polysulfone, polyethersulfone, polyphenylene sulfide, polyphenylene ether or polyphenylene oxide, high-impact polystyrene, acrylonitrile-butadiene-styrene copolymer, acrylonitrile-ethylenepropylene-styrene, acrylonitrile-styrene-alkylacrylate, polycarbonate,

polyethylene terephthalate and polybutyleneterephthalate; or a mixture of the homopolymer and the copolymer.

4. The composition as defined in claim 1, wherein the polyamide comprises semi-crystalline, or amorphous structures, or mixtures thereof.

5 5. The composition as defined in claim 1, wherein the nylon plasticizer is selected from the group consisting of lactams, sulfonamides, phthalates, adipates, phosphates, glycolates or mixtures thereof.

6. The composition as defined in claim 1, wherein the nylon thickener is selected from the group consisting of maleic anhydride modified polyolefin, maleic
10 anhydride modified styrene resin and polyfunctional epoxy resin.

7. The composition as defined in claim 1, wherein the core-shell rubber comprises a hard polymer having a glass transition temperature of 25 °C or higher and a soft polymer having a glass transition temperature of 0 °C or higher.

8. The composition as defined in claim 7, wherein the hard polymer and the soft
15 polymer in the core-shell rubber have a weight ratio of 1:9 to 9:1.

9. The composition as defined in claim 7, wherein the core-shell rubber contains 0.1-25 parts by weight of a reaction monomer on the basis of the whole weights of the core-shell rubber, said reaction monomer being selected from maleic acid, maleic anhydride, monoester or diester of maleic acid, tert-butylacrylate, acrylic
20 acid, glycidylacrylate, vinyloxazoline, or mixtures thereof.

10. The composition as defined in claim 1, further comprising at least one selected from the group consisting of stabilizers, light stabilizers, heat stabilizers, UV stabilizers, lubricants, release agents, pigments, dyes, flame retardants, fiber reinforcing fillers, nucleating agents, or mixtures thereof.

SUB
1

11. A synthetic resin product prepared from the polyamide resin composition of any of claims 1 to 10.

12. A fuel tube for motor vehicles and a hose prepared from the polyamide resin composition of any of claims 1 to 10.

FOI 10020930 121901